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       Luk, Daniel C.

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Glu Ser Lys Ser Ile Thr Leu Pro Asp Ser Thr Leu Gly Ile Met Ser
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Ser Met Ser Pro Val Lys Lys Pro Ala Glu Thr Thr Val Gly Thr Leu
1105   1110   1115   1120
Leu Asp Lys Asp Thr Thr Thr Val Thr Thr Thr Pro Arg Gln Lys Val
                1125   1130   1135
Ala Pro Ser Ser Thr Met Ser Thr His Pro Ser Arg Arg Arg Pro Asn
                1140   1145   1150
Gly Arg Arg Arg Leu Arg Pro Asn Lys Phe Arg His Arg His Lys Gln
            1155   1160   1165
Thr Pro Pro Thr Thr Phe Ala Pro Ser Glu Thr Phe Ser Thr Gln Pro
            1170   1175   1180
Thr Gln Ala Pro Asp Ile Lys Ile Ser Ser Gln Val Glu Ser Ser Leu
1185   1190   1195   1200
Val Pro Thr Ala Trp Val Asp Asn Thr Val Asn Thr Pro Lys Gln Leu
                1205   1210   1215
Glu Met Glu Lys Asn Ala Glu Pro Thr Ser Lys Gly Thr Pro Arg Arg
                1220   1225   1230
Lys His Gly Lys Arg Pro Asn Lys His Arg Tyr Thr Pro Ser Thr Val
            1235   1240   1245
Ser Ser Arg Ala Ser Gly Ser Lys Pro Ser Pro Ser Pro Glu Asn Lys
    1250   1255   1260
His Arg Asn Ile Val Thr Pro Ser Ser Glu Thr Ile Leu Leu Pro Arg
1265   1270   1275   1280
Thr Val Ser Leu Lys Thr Glu Gly Pro Tyr Asp Ser Leu Asp Tyr Met
                1285   1290   1295
Thr Thr Thr Arg Lys Ile Tyr Ser Ser Tyr Pro Lys Val Gln Glu Thr
            1300   1305   1310
Leu Pro Val Thr Tyr Lys Pro Thr Ser Asp Gly Lys Glu Ile Lys Asp
        1315   1320   1325
Asp Val Ala Thr Asn Val Asp Lys His Lys Ser Asp Ile Leu Val Thr
    1330   1335   1340
Gly Glu Ser Ile Thr Asn Ala Ile Pro Thr Ser Arg Ser Leu Val Ser
1345   1350   1355   1360
Thr Met Gly Glu Phe Lys Glu Glu Ser Ser Pro Val Gly Phe Pro Gly
                1365   1370   1375
Thr Pro Thr Trp Asn Pro Ser Arg Thr Ala Gln Pro Gly Arg Leu Gln
                1380   1385   1390
Thr Asp Ile Pro Val Thr Thr Ser Gly Glu Asn Leu Thr Asp Pro Pro
            1395   1400   1405
Leu Leu Lys Glu Leu Glu Asp Val Asp Phe Thr Ser Glu Phe Leu Ser
    1410   1415   1420
Ser Leu Thr Val Ser Thr Pro Phe His Gln Glu Glu Ala Gly Ser Ser
1425   1430   1435   1440
Thr Thr Leu Ser Ser Ile Lys Val Glu Val Ala Ser Ser Gln Ala Glu
                1445   1450   1455
Thr Thr Thr Leu Asp Gln Asp His Leu Glu Thr Thr Val Ala Ile Leu
            1460   1465   1470
Leu Ser Glu Thr Arg Pro Gln Asn His Thr Pro Thr Ala Ala Arg Met
        1475   1480   1485
Lys Glu Pro Ala Ser Ser Ser Pro Ser Thr Ile Leu Met Ser Leu Gly
    1490   1495   1500
Gln Thr Thr Thr Thr Lys Pro Ala Leu Pro Ser Pro Arg Ile Ser Gln
1505   1510   1515   1520
Ala Ser Arg Asp Ser Lys Glu Asn Val Phe Leu Asn Tyr Val Gly Asn

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                1525                1530                1535
Pro Glu Thr Glu Ala Thr Pro Val Asn Asn Glu Gly Thr Gln His Met
            1540                1545                1550
Ser Gly Pro Asn Glu Leu Ser Thr Pro Ser Ser Asp Arg Asp Ala Phe
          1555                1560                1565
Asn Leu Ser Thr Lys Leu Glu Leu Glu Lys Gln Val Phe Gly Ser Arg
        1570                1575                1580
Ser Leu Pro Arg Gly Pro Asp Ser Gln Arg Gln Asp Gly Arg Val His
1585                1590                1595                1600
Ala Ser His Gln Leu Thr Arg Val Pro Ala Lys Pro Ile Leu Pro Thr
              1605                1610                1615
Ala Thr Val Arg Leu Pro Glu Met Ser Thr Gln Ser Ala Ser Arg Tyr
            1620                1625                1630
Phe Val Thr Ser Gln Ser Pro Arg His Trp Thr Asn Lys Pro Glu Ile
          1635                1640                1645
Thr Thr Tyr Pro Ser Gly Ala Leu Pro Glu Asn Lys Gln Phe Thr Thr
          1650                1655                1660
Pro Arg Leu Ser Ser Thr Thr Ile Pro Leu Pro Leu His Met Ser Lys
1665                1670                1675                1680
Pro Ser Ile Pro Ser Lys Phe Thr Asp Arg Arg Thr Asp Gln Phe Asn
              1685                1690                1695
Gly Tyr Ser Lys Val Phe Gly Asn Asn Asn Ile Pro Glu Ala Arg Asn
            1700                1705                1710
Pro Val Gly Lys Pro Pro Ser Pro Arg Ile Pro His Tyr Ser Asn Gly
          1715                1720                1725
Arg Leu Pro Phe Phe Thr Asn Lys Thr Leu Ser Phe Pro Gln Leu Gly
        1730                1735                1740
Val Thr Arg Arg Pro Gln Ile Pro Thr Ser Pro Ala Pro Val Met Arg
1745                1750                1755                1760
Glu Arg Lys Val Ile Pro Gly Ser Tyr Asn Arg Ile His Ser His Ser
              1765                1770                1775
Thr Phe His Leu Asp Phe Gly Pro Pro Ala Pro Pro Leu Leu His Thr
            1780                1785                1790
Pro Gln Thr Thr Gly Ser Pro Ser Thr Asn Leu Gln Asn Ile Pro Met
          1795                1800                1805
Val Ser Ser Thr Gln Ser Ser Ile Ser Phe Ile Thr Ser Ser Val Gln
        1810                1815                1820
Ser Ser Gly Ser Phe His Gln Ser Ser Ser Lys Phe Phe Ala Gly Gly
1825                1830                1835                1840
Pro Pro Ala Ser Lys Phe Trp Ser Leu Gly Glu Lys Pro Gln Ile Leu
            1845                1850                1855
Thr Lys Ser Pro Gln Thr Val Ser Val Thr Ala Glu Thr Asp Thr Val
            1860                1865                1870
Phe Pro Cys Glu Ala Thr Gly Lys Pro Lys Pro Phe Val Thr Trp Thr
          1875                1880                1885
Lys Val Ser Thr Gly Ala Leu Met Thr Pro Asn Thr Arg Ile Gln Arg
        1890                1895                1900
Phe Glu Val Leu Lys Asn Gly Thr Leu Val Ile Arg Lys Val Gln Val
1905                1910                1915                1920
Gln Asp Arg Gly Gln Tyr Met Cys Thr Ala Ser Asn Leu His Gly Leu
            1925                1930                1935
Asp Arg Met Val Val Leu Leu Ser Val Thr Val Gln Gln Pro Gln Ile
          1940                1945                1950
Leu Ala Ser His Tyr Gln Asp Val Thr Val Tyr Leu Gly Asp Thr Ile
        1955                1960                1965
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Ala Met Glu Cys Leu Ala Lys Gly Thr Pro Ala Pro Gln Ile Ser Trp
    1970                1975                1980
Ile Phe Pro Asp Arg Arg Val Trp Gln Thr Val Ser Pro Val Glu Ser
1985                1990                1995                2000
Arg Ile·Thr Leu His Glu Asn Arg.Thr Leu Ser Ile Lys Glu Ala Ser
                2005                2010                2015
Phe Ser Asp Arg Gly Val Tyr Lys Cys Val Ala Ser Asn Ala Ala Gly
                2020                2025                2030
Ala Asp Ser Leu Ala Ile Arg Leu His Val Ala Ala Leu Pro Pro Val
                2035                2040                2045
Ile His Gln Glu Lys Leu Glu Asn Ile Ser Leu Pro Pro Gly Leu Ser
                2050                2055                2060
Ile His Ile His Cys Thr Ala Lys Ala Ala Pro Leu Pro Ser Val Arg
2065                2070                2075                2080
Trp Val Leu Gly Asp Gly Thr Gln Ile Arg Pro Ser Gln Phe Leu His
                2085                2090                2095
Gly Asn Leu Phe Val Phe Pro Asn Gly Thr Leu Tyr Ile Arg Asn Leu
                2100                2105                2110
Ala Pro Lys Asp Ser Gly Arg Tyr Glu Cys Val Ala Ala Asn Leu Val
                2115                2120                2125
Gly Ser Ala Arg Arg Thr Val Gln Leu Asn Val Gln Arg Ala Ala Ala
2130                2135                2140
Asn Ala Arg Ile Thr Gly Thr Ser Pro Arg Arg Thr Asp Val Arg Tyr
2145                2150                2155                2160
Gly Gly Thr Leu Lys Leu Asp Cys Ser Ala Ser Gly Asp Pro Trp Pro
                2165                2170                2175
Arg Ile Leu Trp Arg Leu·Pro Ser Lys Arg Met Ile Asp Ala Leu Phe
                2180                2185                2190
Ser Phe Asp Ser Arg Ile Lys Val Phe Ala Asn Gly Thr Leu Val Val
                2195                2200                2205
Lys Ser Val Thr Asp Lys Asp Ala Gly Asp Tyr Leu Cys Val Ala Arg
                2210                2215                2220
Asn Lys Val Gly Asp Asp Tyr Val Val Leu Lys Val Asp Val Val Met
2225                2230                2235                2240
Lys Pro Ala Lys Ile Glu His Lys Glu Glu Asn Asp His Lys Val Phe
                2245                2250                2255
Tyr Gly Gly Asp Leu Lys Val Asp Cys Val Ala Thr Gly Leu Pro Asn
                2260                2265                2270
Pro Glu Ile Ser Trp Ser Leu Pro Asp Gly Ser Leu Val Asn Ser Phe
                2275                2280                2285
Met Gln Ser Asp Asp Ser Gly Gly Arg Thr Lys Arg Tyr Val Val Phe
                2290                2295                2300
Asn Asn Gly Thr Leu Tyr Phe Asn Glu Val Gly Met Arg Glu Glu Gly
2305                2310                2315                2320
Asp Tyr Thr Cys Phe Ala Glu Asn Gln Val Gly Lys Asp Glu Met Arg
                2325                2330                2335
Val Arg Val Lys Val Val Thr Ala Pro Ala Thr Ile Arg Asn Lys Thr
                2340                2345                2350
Tyr Leu Ala Val Gln Val Pro Tyr Gly Asp Val Val Thr Val Ala Cys
                2355                2360                2365
Glu Ala Lys Gly Glu Pro Met Pro Lys Val Thr Trp Leu Ser Pro Thr
                2370                2375                2380
Asn Lys Val Ile Pro Thr Ser Ser Glu Lys Tyr Gln Ile Tyr Gln Asp
2385                2390                2395                2400
Gly Thr Leu Leu Ile Gln Lys Ala Gln Arg Ser Asp Ser Gly Asn Tyr
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                    2405                2410                    2415
Thr Cys Leu Val Arg Asn Ser Ala Gly Glu Asp Arg Lys Thr Val Trp
          2420                2425                    2430
Ile His Val Asn Val Gln Pro Pro Lys Ile Asn Gly Asn Pro Asn Pro
       ·2435                2440                 . 2445
Ile Thr Thr Val Arg Glu Ile Ala Ala Gly Gly Ser Arg Lys Leu Ile
       2450                2455                2460
Asp Cys Lys Ala Glu Gly Ile Pro Thr Pro Arg Val Leu Trp Ala Phe
2465                2470                2475                    2480
Pro Glu Gly Val Val Leu Pro Ala Pro Tyr Tyr Gly Asn Arg Ile Thr
              2485                2490                2495
Val His Gly Asn Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp
          2500                2505                2510
Ser Val Gln Leu Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg
          2515                2520                2525
Leu Ile Val Gln Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe
          2530                2535                2540
His Asp Pro Ile Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile
2545                2550                2555                    2560
Ser Leu Asn Cys Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp
              2565                2570                2575
Val Leu Pro Asn Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg
              2580                2585                2590
Phe Tyr His Lys Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser
          2595                2600                2605
Val Asp Ala Gly Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His
2610                2615                    2620
Thr Glu Arg Leu Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn
2625                2630                2635                    2640
Lys Gln Tyr His Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys
              2645                2650                2655
Leu Pro Cys Thr Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr
              2660                2665                2670
Leu Pro Asn Gly Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val
          2675                2680                2685
Ser Leu Leu Asp Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe
          2690                2695                2700
Asp Arg Gly Thr Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser
2705                2710                2715                    2720
Val Thr Ser Ile Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr
              2725                2730                2735
Ser Glu Pro Thr Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys
              2740                2745                2750
Leu Asn Cys Met Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu
          2755                2760                2765
Leu Pro Asp Lys Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr
          2770                2775                2780
Gly Asn Arg Phe Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala
2785                2790                2795                    2800
Thr Gln Arg Asp Ala Gly Phe Tyr Lys Cys Met Ala Lys Asn Ile Leu
              2805                2810                2815
Gly Ser Asp Ser Lys Thr Thr Tyr Ile His Val Phe
              2820                2825
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<220>
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<220>
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<210> 6
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<210> 8

40

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<400> 9
Cys Met Ala Lys Asn Ile Leu Gly Ser Asp Ser Lys Thr Thr Tyr
1               5                   10                  15
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